

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Watson Hopper

New Mexico Manufacturing Extension Partnership

Success With 5S at Watson Hopper

Client Profile:

Watson Hopper, a company in the oil and gas industry, is a manufacturer of oil well servicing equipment. The company was founded in 1993 and has experienced consistent growth. Watson Hopper employs approximately 50 people ranging from administrative to metal fabrication production personnel at their facility in Hobbs, Minnesota. Their primary product line is a mobile oil well drilling unit called a Pulling Rig.

Situation:

With recent increases in the price of oil, there have been significant increases in domestic drilling in the U.S. This increase resulted in an increased demand for drilling equipment. Watson Hopper had consistently been able to meet previous demands for their products, but they now faced various challenges meeting demand and utilized New Mexico Manufacturing Extension Partnership's (New Mexico MEP), a NIST MEP network affiliate, services to resolve this issue.

Solution:

New Mexico MEP and Watson Hopper embarked on a complete Lean transformation process. The first step was to provide basic training in Lean Manufacturing concepts to all employees. Then a Value Stream Map (VSM) was performed of the complete manufacturing process for their key product. This VSM was utilized to target the most critical areas of production in the facility where waste was the most prevalent and having the largest impact on final product throughput. As a result of the VSM, it was determined that a 5S (work place organization) should be conducted on the hydraulics assembly area.

Results:

- * Reduced assembly time on Right Angle Drives and Main Ram Cylinders from 2 days to 1 day.
- * Increased output capacity by 100 percent.
- * Increased sales by \$1.8 million in one year.

Testimonial:

"The Lean Manufacturing projects that the New Mexico MEP have performed with Watson Hopper are in fact improving our real world throughput. The Hydraulics Assembly shop is now working and completing product and part assemblies faster than our machine shop can provide the parts to perform the job. The results of the 5S event were immediate. It used to take over 2 days to complete the assembly for a right angle drive due to all of the lifting, lugging, and back and forth transport of parts and materials. After the 5S event and our changes to the layout of the shop, making materials and tools point of use storage, it now takes less than a day to assemble the same right angle drive. After seeing the results of the 5S event, the rest of the facility is now asking when a Lean event will be held for their areas as well. The entire company is anxious to continue implementing Lean Manufacturing

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methodologies throughout."

Mike Slaugh, Production Manager